Appendix 1 - Airplanes

TASK VS. SIMULATION DEVICE CREDIT

Examiners conducting the Airline Transport Pilot and/or Type Rating Practical Tests with simulation devices should consult appropriate documentation to ensure that the device has been approved for training and checking the TASKS in question. The documentation for each device should reflect that the following activities have occurred:

1. The device must be evaluated, determined to meet the appropriate standards, and assigned the appropriate qualification level by the National Simulator Program Manager. The device must continue to meet qualification standards through continuing evaluations as outlined in the appropriate advisory circular (AC). For airplane flight training devices (FTD's), AC 120-45(as amended), Airplane Flight Training Device Qualification, will be used. For simulators, AC 120-40 (as amended), Airplane Simulator Qualification, will be used.
2. The FAA must approve the device for specific TASKS.
3. The device must continue to support the level of student or applicant performance required by this PTS.

NOTE: Users of the following chart are cautioned that use of the chart alone is incomplete. The description and objective of each task as listed in the body of the PTS, including all notes, must also be incorporated for accurate simulation device use.

USE OF CHART

X Creditable.

A Creditable if appropriate systems are installed and operating.

NOTE: 1. The airplane may be used for all tasks.
2. Level C simulators may be used as indicated only if the applicant meets established pre-requisite experience requirements.
3. Training Devices below Level 4 may NOT be used for Airplane Type Ratings.
4. Standards for and use of Level 1 Flight Training Devices have not been determined

FLIGHT TASK Areas of Operation : Section Two	FLIGHT SIMULATION DEVICE LEVEL 1	2	3	4	5	6	7	A	B	C	D
I. Preflight Procedures											
A. Preflight Inspection (Cockpit Only)		A	X	A	A	X	X	X	X	X	X
II. Ground Operations											
A. Powerplant Start		A	X	A	A	X	X	X	X	X	X
B. Taxiing										X	X
C. Pretakeoff Checks		A	X	A	A	X	X	X	X	X	X
III. Takeoff and Departure Maneuvers											
A. Normal and Crosswind Takeoff										X	X
B. Instrument Takeoff (Levels 3, 6, & 7 require a visual sys. approved in accordance with AC 120-40, as amended)			X			X	X	X	X	X	X
C. Powerplant Failure During Takeoff								X	X	X	X
D. Rejected Takeoff (Levels 3, 6, & 7 require a visual sys. approved in accordance with AC 120-40, as amended)			X			X	X	X	X	X	X
E. Instrument Departure			X			X	X	X	X	X	X
IV. Inflight Maneuvers											
A. Steep Turns			X			X	X	X	X	X	X
B. Approaches to Stalls (Use of Levels 3, 6, & 7 require operational synthetic stall warning system)			X			X	X	X	X	X	X
C. Powerplant Failure - Multiengine Airplane								X	X	X	X
D. Powerplant Failure - Single-Engine Airplane			X			X	X	X	X	X	X
E. Specific Flight Characteristics	Level of device as determined by the airplane Flight Standardization Board (FSB)										

FLIGHT TASK Areas of Operation : Section Two	FLIGHT SIMULATION DEVICE LEVEL 1	2	3	4	5	6	7	A	B	C	D
V. Instrument Procedures											
A. Instrument Arrival			X			X	X	X	X	X	X
B. Holding			X			X	X	X	X	X	X
C1. Precision Approach (All Eng. Operating) (Autopilot/Manual Flt. Dir. Assist/Manual Raw Data) (Levels 2&5 use limited to A/P coupled approach only)		A	X		A	X	X	X	X	X	X
C2. Precision Approach (One Eng. Inop.) (Manual Flt. Dir. Asst/Manual Raw Data)								X	X	X	X
D. Nonprecision Approach (Not more than one authorized in a device less than Level A simulator) (Levels 2&5 use limited to A/P coupled approach only)		A	X		A	X	X	X	X	X	X
E. Circling Approach (each appr. must be specifically auth.)								X	X	X	X
F1. Missed Approach (Normal)			X			X	X	X	X	X	X
F2. Missed Approach (Powerplant Failure)								X	X	X	X
VI. Landings and Approaches to Landings											
A. Normal and Crosswind Approaches and Landings										X	X
B. Landing From a Precision Approach										X	X
C. Landing with Powerplant Failure										X	X
D. Landing From Circling Approach										X	X
E. Rejected Landing								X	X	X	X
F. Landing From 0° or Nonstandard Flap Approach										X	X

FLIGHT TASK Areas of Operation : Section Two	FLIGHT SIMULATION DEVICE LEVEL 1	2	3	4	5	6	7	A	B	C	D
VII. Normal and Abnormal Procedures (*1) (*2)											
A. Powerplant (including shutdown & restart)		A	X	A	A	X	X	X	X	X	X
B. Fuel System		A	X	A	A	X	X	X	X	X	X
C. Electrical System		A	X	A	A	X	X	X	X	X	X
D. Hydraulic System		A	X	A	A	X	X	X	X	X	X
E. Environmental and Pressurization Systems		A	X	A	A	X	X	X	X	X	X
F. Fire Detection and Extinguisher Systems		A	X	A	A	X	X	X	X	X	X
G. Navigation and Avionics Systems		A	X	A	A	X	X	X	X	X	X
H. Automatic Flight Control System, Electronic Flight Instrument System, and Related Subsystem		A	X	A	A	X	X	X	X	X	X
I. Flight Control Systems								X	X	X	X
J. Anti-ice and Deice Systems		A	X	A	A	X	X	X	X	X	X
K. Aircraft and Personal Emergency Equipment		A	X	A	A	X	X	X	X	X	X
L. Others, as determined by make, model, or series				A	A	X	X	X	X	X	X
VIII. Emergency Procedures											
A. Emergency Descent (Max. Rate)			X			X	X	X	X	X	X
B. Inflight Fire and Smoke Removal		A	X	A	A	X	X	X	X	X	X
C. Rapid Decompression		A	X	A	A	X	X	X	X	X	X
D. Emergency Evacuation			X			X	X	X	X	X	X
E. Others (as may be required by AFM)		A	X	A	A	X	X	X	X	X	X
IX. Postflight Procedures											
A. After Landing		A	X	A	A	X	X	X	X	X	X
B. Parking and Securing		A	X	A	A	X	X	X	X	X	X

(*1) Evaluation of normal and abnormal procedures may be accomplished in conjunction with other events.

(*2) Situations resulting in asymmetrical thrust or drag conditions (i.e., asymmetrical flight controls) must be accomplished in at least a Level A device. However, shutdown and restart (procedures only) may be accomplished in a properly equipped FTD.

Appendix 2 - Helicopters

TASK VS. SIMULATION DEVICE CREDIT

Examiners conducting the Airline Transport Pilot and/or Type Rating Practical Tests with simulation devices should consult appropriate documentation to ensure that the device has been approved for training and checking the TASKS in question. The documentation for each device should reflect that the following activities have occurred:

1. The device must be evaluated, determined to meet the appropriate standards, and assigned the appropriate qualification level by the National Simulator Program Manager. The device must continue to meet qualification standards through continuing evaluations as outlined in the appropriate advisory circular (AC). For helicopter simulators, AC 120-63 (as amended), Helicopter Simulator Qualification, will be used.
2. The FAA must approve the device for specific TASKS.
3. The device must continue to support the level of student or applicant performance required by this PTS.

NOTE: Users of the following chart are cautioned that use of the chart alone is incomplete. The description and objective of each task as listed in the body of the PTS, including all notes, must also be incorporated for accurate simulation device use.

USE OF CHART

X Creditable.

X1 Creditable only if accomplished in conjunction with a running takeoff or running landing, as appropriate.

NOTE: 1. The helicopter may be used for all tasks.
2. Level C simulators may be used as indicated only if the applicant meets established pre-requisite experience requirements.
3. Level A helicopter simulator standards have not been defined.
4. Helicopter flight training devices have not been defined.

FLIGHT TASK Areas of Operation: Section Two	LEVEL of SIMULATION DEVICE 1	2	3	4	5	6	7	A	B	C	D
I. Preflight Procedures											
A. Preflight Inspection (Cockpit Only)									X	X	X
II. Ground Operation											
A. Powerplant Start									X	X	X
B1. Taxi - Ground									X	X	X
B2. Taxi - Hover										X	X
C. Pretakeoff Checks									X	X	X
III. Takeoff and Departure Maneuvers											
A. Normal and Crosswind Takeoff									X1	X	X
B. Instrument Takeoff									X1	X	X
C. Powerplant Failure During Takeoff									X1	X	X
D. Rejected Takeoff									X1	X	X
E. Instrument Departure									X	X	X
IV. Inflight Maneuvers											
A. Steep Turns									X	X	X
B. Powerplant Failure - Multiengine Helicopters									X	X	X
C. Powerplant Failure - Single-Engine Helicopters									X	X	X
D. Recovery From Unusual Attitudes									X	X	X
E. Settling-With-Power										X	X

FLIGHT TASK Areas of Operation: Section Two (Cont.)	LEVEL of SIMULATION DEVICE 1	2	3	4	5	6	7	A	B	C	D
V. Instrument Procedures											
A. Instrument Arrival									X	X	X
B. Holding									X	X	X
C1. Precision Instrument Approach (Normal)									X	X	X
C2. Precision Inst. Approach (Manual/Pwrplnt Fail.)									X	X	X
D. Nonprecision Instrument Approaches									X	X	X
E1. Missed Approach (Normal)									X	X	X
E2. Missed Approach (Powerplant Failure)									X	X	X
VI. Landings and Approaches to Landings											
A. Normal and Crosswind Approaches and Landings									X1	X	X
B. Landing with Powerplant Failure									X1	X	X
C. Rejected Landing									X	X	X
VII. Normal and Abnormal Procedures (*1)											
A. Powerplant									X	X	X
B. Fuel System									X	X	X
C. Electrical System									X	X	X
D. Hydraulic System									X	X	X
E. Environmental System(s)									X	X	X

(*1) Evaluation of normal and abnormal procedures can usually be accomplished in conjunction with other events and does not normally require a specific event to test the applicant's use of the aircraft systems and devices. An applicant's performance must be evaluated on the maintenance of helicopter control, the ability to recognize and analyze abnormal indications, and the ability to apply corrective procedures in a timely manner.

FLIGHT TASK Areas of Operation: Section Two (Cont.)	LEVEL of SIMULATION DEVICE 1	2	3	4	5	6	7	A	B	C	D
VII. Normal and Abnormal Procedures (Cont.) (*1)											
F. Fire Detection and Extinguisher Systems									X	X	X
G. Navigation and Aviation Systems									X	X	X
H. Automatic Flight Control System, Electronic Flight Instrument System, and Related Subsys.									X	X	X
I. Flight Control Systems									X	X	X
J. Anti-ice and Deice Systems									X	X	X
K. Aircraft and Personal Emergency Equipment									X	X	X
L. Loss of Tail Rotor Effectiveness										X	X
M. Others, as determined by make, model, or series											
VII. Emergency Procedures											
A. Emergency Descent									X	X	X
B. Inflight Fire and Smoke Removal									X	X	X
C. Emergency Evacuation									X	X	X
D. Ditching										X	X
E. Autorotative Landing										X	X
IX. Postflight Procedures											
A. After Landing									X	X	X
B. Parking and Securing									X	X	X

(*1) Evaluation of normal and abnormal procedures can usually be accomplished in conjunction with other events and does not normally require a specific event to test the applicant's use of the aircraft systems and devices. An applicant's performance must be evaluated on the maintenance of helicopter control, the ability to recognize and analyze abnormal indications, and the ability to apply corrective procedures in a timely manner.